

(12) **INTERNATIONAL APPLICATION PUBLISHED UNDER
THE PATENT COOPERATION TREATY (PCT)**

(19) World Intellectual Property Organization

International Bureau

(43) International Publication Date

25 November 2004 (25.11.2004)

(10) International Publication Number

WO 2004/101429 A1

(51) International Patent Classification⁷: B82B 3/00, G12B 21/08

(21) International Application Number: PCT/JP2004/005882

(22) International Filing Date: 23 April 2004 (23.04.2004)

(25) Filing Language: Japanese

(26) Publication Language: Japanese

(30) Priority Data:

2003-122630

25 April 2003 (25.04.2003)

JP

(71) Applicant (all designated states except US):

NATIONAL INSTITUTE OF INFORMATION AND COMMUNICATIONS
TECHNOLOGY [JP/JP]; 4-2-1 Nukui-Kitamachi, Koganei-shi, Tokyo 1848795 (JP)

(72) Inventor; and

(75) Inventor / Applicant (only US):

OTOMO, Akira [JP/JP]; c/o National Institute of Information and
Communications Technology [JP/JP]; 4-2-1 Nukui-Kitamachi, Koganei-shi, Tokyo
1848795 (JP)

FURUMI, Seiichi [JP/JP]; c/o National Institute of Information and
Communications Technology [JP/JP]; 4-2-1 Nukui-Kitamachi, Koganei-shi, Tokyo
1848795 (JP)

MIKI, Hideki [JP/JP]; c/o National Institute of Information and
Communications Technology [JP/JP]; 4-2-1 Nukui-Kitamachi, Koganei-shi, Tokyo
1848795 (JP)

SUZUKI, Hitoshi [JP/JP]; c/o National Institute of Information and
Communications Technology [JP/JP]; 4-2-1 Nukui-Kitamachi, Koganei-shi, Tokyo
1848795 (JP)

TANAKA, Shukichi [JP/JP]; c/o National Institute of Information and
Communications Technology [JP/JP]; 4-2-1 Nukui-Kitamachi, Koganei-shi, Tokyo
1848795 (JP)

MASHIKO, Shinro [JP/JP]; c/o National Institute of Information and Communications Technology [JP/JP]; 4-2-1 Nukui-Kitamachi, Koganei-shi, Tokyo 1848795 (JP)

(74) Agent:

Takashi OHGAKI; Ikebukuro Center Bldg. 4F, 35-3,

Higashi-Ikebukuro 1-chome, Toshima-ku, Tokyo 170-0013 (JP)

(81) Designated States (national):

(84) Designated States (regional):

- Published: with international search report
- Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments

(54) Title: PROBE

(57) Abstract: A probe comprising support (12) of a gold wire and, fixed thereon, intermediate excited medium (18a) having been excited to an excited triplet state by supply of external energy thereto, wherein transfer of excited triplet energy is effected from the intermediate excited medium toward a first molecule having a residue with bonding capability. The first molecule having thus been excited by the transfer of excited triplet energy is bonded with a second molecule having a residue with bonding capability as a bonding target to be bonded with the first molecule.